

614
724411 (25)

RECEIVED
RECEIVED
RECEIVED
DON 44830
READIC

Annual Report

of the

Medical Officer of Health

E. BERTRAM SMITH,

M.B., B.S.; D.P.H.

for the

Halstead Urban District Council for the Year 1913.

1914.

W. H. Root, Caxton Works,
Halstead, Essex.

HALSTEAD URBAN DISTRICT COUNCIL.

ANNUAL REPORT OF THE MEDICAL OFFICER OF HEALTH FOR THE YEAR 1913.

MR. CHAIRMAN AND GENTLEMEN,

In submitting this, my first Annual Report, I wish first of all to thank the members of the Council for the kind and courteous way in which they have treated me and my reports since I took office in April last; and also to thank my predecessor, Dr. C. Gordon Roberts, the clerk, Mr. Morton, and the Sanitary Inspector, Mr. Nicholson, for the assistance they have given me in helping me to obtain a knowledge of the sanitary affairs of the town with the least possible delay.

Although I am only responsible for a report upon the three quarters of the year that have elapsed since I took office, I have been asked by Dr. Roberts to report upon the whole year, and he has given me the necessary information to enable me to do so.

The most important events of the year have been the very extensive epidemic of diphtheria, upon which a special report was presented in August, and the determination of the Council to erect houses for the working classes, and to re-organise the Isolation Hospital arrangements.

A. NATURAL AND SOCIAL CONDITIONS OF THE DISTRICT.

PHYSICAL FEATURES OF THE DISTRICT.—The Urban District comprises a circular area, with a radius of 1,000 yards measured from the Town Bridge. This comprises 647 acres and just includes all the thickly populated portion of the town, so that only a very small part of it is rural in character.

It comprises the civil parish of Halstead Urban, and lies on the slopes of the river Colne, which divides it into two halves. It varies in elevation from 110 feet to 225 feet above ordnance datum.

The subsoil is largely gravel with patches of loam and lies upon the London clay, below which the chalk is reached at a depth of about 200 feet.

POPULATION, SOCIAL CONDITIONS, &c.—The population at the time of the 1911 census was 6,264, showing an increase since 1901 of 191, while on the previous ten years the increase had been only 17. I have estimated the population to have been 6,309 in the middle of the year 1913.

The chief industries are an iron foundry employing about 250 men and a large textile factory employing some 200 men and 800 women. It will thus be seen that there is considerable industrial employment of women.

The proportion of males to females in the county of Essex in 1911 was 1,000 to 1,050, and in England and Wales 1,000 to 1,068, but in Halstead it was 1,000 males to 1,208 females. I expect this is chiefly due to the large amount of employment for women that there is in the town, which not only prevent girls from leaving it to go into domestic service, but attracts from outside women who have to earn their own living.

This fact may have some bearing upon the death-rates from various diseases that are not equally severe in the two sexes.

One of the latest volumes of Census Returns shows the number of buildings used as dwellings.

1911.									1910.
	Ordinary dwelling houses.	Blocks of Flats.	Shops.	Hotels, Inns, and Public Houses.	Offices, Warehouses, Workshops, Factories.	Institutions.	Others.	Total.	Total.
Inhabited ...	1436	...	96	28	5	5	5	1575	1480
Uninhabited ...	67	...	11	1	1	1	..	81	88
Being built ...	4	...	1	...	...	...	...	5	10

I think that the total of 81 uninhabited houses must have included a good many that were uninhabitable, as I feel sure that there were not anything like that number of empty houses which were available as dwellings three years ago. It also includes all those which, although occupied, were temporarily empty (from the absence of the inhabitants on a visit, &c.) on the particular night of the Census.

Another volume shows the number of rooms per house, and the number of persons occupying them, and from it the table on the next page is extracted.

The number of houses with more than two persons per room (or roughly four per bedroom) is eight, and they are shown on the table in heavy type. They contained 80 persons or 1·3 per cent. of the population in private families. This is a very low proportion.

NUMBER OF PERSONS IN PRIVATE FAMILIES.—CENSUS, 1911.

No. of Rooms per Tenement.	Number of Persons in Private Families.															Total number of Private Families.	Population in Private Families.
	Number of Private Families.																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15 and up-wards.		
1	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	3
2	25	19	5	1	1	...	...	...	...	...	...	...	...	...	...	51	87
3	15	15	9	11	2	...	...	...	...	...	...	...	...	...	...	53	133
4	65	163	114	103	44	29	21	3	2	...	...	...	...	...	...	544	1,728
5	10	44	41	48	32	21	16	15	5	4	1	...	1	...	...	238	1,040
6	16	89	102	91	84	60	42	13	12	11	1	2	2	...	...	525	2,321
7	...	9	11	10	5	5	3	1	1	2	...	1	...	...	...	48	216
8	1	4	14	14	8	5	4	4	4	...	...	...	...	...	...	58	273
9	...	4	4	8	5	2	1	1	...	...	...	...	...	...	...	25	104
10 and upwards	...	6	9	5	7	6	5	1	...	...	...	...	...	...	...	39	173
	135	353	309	291	188	128	93	38	24	17	2	3	3	—	—	1,584	6,078

Population other than in private families, 186; total, 6,264.

The figures for Poor Law Relief are only obtainable for the whole Union area, which is made up in the following rough proportions (on a population basis), of the Halstead Urban District one third and the Halstead Rural District two thirds.

The following figures have been kindly supplied me by the Clerk to the Guardians :—

			1903		1913	
			Jan.	July	Jan.	July
No. of Outdoor Paupers	...		400	395	234	268
„ Indoor Paupers	...		105	98	99	87
„ Lunatics	...		55	62	63	63
			For the half-years ending			
			March	Sept.	March	Sept.
			£	£	£	£
Cost of Out-relief	...		940	978	678	643
„ In-maintenance	...		717	649	716	607
„ Lunatics	...		702	789	970	1002

The facilities for hospital relief are not very great. There is a small Cottage Hospital of four beds in the town, the nearest general hospitals being at Colchester (14 miles) and London (50 miles).

The Tuberculosis Officer attends at a room in the town once a week.

WATER SUPPLY.—The entire district is supplied from the Council's works. These consist of two deep wells sunk in the chalk.

The old well is situated in Head Street at about 200 feet above ordnance datum, and was constructed in 1863. It is 140 feet deep and brick-lined, and is fed by a bore-tube extending another 170 feet and penetrating the chalk for 80 feet. The pumps are placed at a depth of 100 feet, are drawn by gas engines, and deliver 5,000 gallons per hour.

The new well is situated in the lower part of the town at about 130 feet above O.D. It is 48 feet deep and is fed from a similar bore-tube. The pumps are placed at 17 feet from the surface and the rest level is 20 feet. Until the bore was deepened 50 feet in 1912 the water level was lowered 28 feet after two hours' pumping. Now the level is only lowered 12 feet after a day's pumping, and this is quickly regained. The water is raised from this well by pumps, driven by steam engines, and delivering 14,000 gallons per hour to the towers in Head Street. These hold 126,000 gallons. An average day's pumping is 12 hours, or 168,000 gallons, or nearly 27 gallons per head of the population. During the year no new mains have been laid, and two new houses have had supply laid on. The pressure is good and the service constant, except on the upper portions of Tidings Hill and Mount Hill; but the Council are intending to relay the mains here during the coming year.

The water is of excellent quality, and an analysis made by Dr. Thresh is subjoined.

PHYSICAL EXAMINATION.

Turbidity. Clear, slightly dull.
 Colour. Faint Yellowish.
 Odour. None.

CHEMICAL EXAMINATION.

	Parts per 100,000.
Total Solid Matter dried at 180 deg. Cent. ...	46'0
Chlorine	8'6
Hardness	27'0
Nitrates (as Nitrogen)	0'05
Nitrites	0'000
Free Ammonia	0'16
Organic Ammonia	0'001
Oxygen absorbed in 3 hours at 37 deg. Cent. ...	0'010

Probable Composition of Solid Matter.

Calcium Carbonate	25'25
Magnesium „	2'35
„ Suphate	2 9
Sodium Chloride	14'2
„ Nitrate	0'35
Etc.	0'95
	<hr/> 46'0 <hr/>

RIVERS AND STREAMS.—The only considerable stream in the district is the River Coine, and as far as I am aware, no pollution occurs in its course through the district.

DRAINAGE AND SEWERAGE.—The district is thoroughly sewered, there being only six cesspools. The majority of the sewers are old, and at the backs of the houses, and were probably in the first instance, piped-in ditches. They are not systematically ventilated, although great improvements have been made in them in recent years as referred to in my predecessors annual report for 1912. There is still more to be done in this connection, and I think the Council should consider the question of relaying the old sewer at the back of High Street. There are some separate storm water sewers, but the greater part of the town is on the combined system. No new sewers have been constructed or old ones relaid during the year. Two new houses have been connected up.

The sewage disposal works have now been working for a sufficiently long time to have had a thorough trial, and although a great improvement upon the old system, they cannot be said to be entirely satisfactory or to come up to the standard promised by the engineers. During the year alterations have been made in the staff, by which a greater portion of the 24 hours' flow is treated on the beds and less on the already overburdened land, with considerable improvement in the result.

The new works were commenced in August, 1909, and completed in October, 1912, the cost of £1,800 being defrayed out of current rates, thus saving considerable expenses connected with raising the money by loan. They consist of six "Dibden" slate beds, each 23ft. by 56ft. and of an average depth of 1ft. 9in. These are arranged in parallel and take the crude unscreened sewage. They are filled in rotation, each taking about one hour to fill. They remain full for two hours for bacterial action to take place and are then emptied, which takes one hour and stand resting

for two hours. In the dry weather flow each bed is filled and emptied twice a day; and they all stand empty at night, the sewage then going direct to the land. From the slate beds, the sewage passes through small humus pits to a set of six contact beds of roughly similar size and 3ft. deep. Here the cycle is the same, and from these beds the effluent passes into an outfall channel and mixing with the effluent from the land, is discharged into the river Colne. Bacterial action is considerably hindered by the presence in the sewage of the effluent from a tannery in the town.

CLOSET ACCOMMODATION.—Owing to the persistent efforts of the Council for several years, the majority of the houses on the sewers has a separate water closet. I am sorry to say that many of the flushing tanks are of very poor construction and constantly getting out of order, and I think it would be in their own interest for owners to replace them by more durable ones. There are 10 cesspit privies and 11 pail closets in the district.

SCAVENGING.—A special return on this subject has recently been sent to the Local Government Board. There are about 200 fixed ashpits and 800 moveable receptacles; and I am glad to say that all of the latter are proper galvanised iron bins provided with covers. The bins are emptied weekly, and the ashpit fortnightly by the Council's own staff, and the refuse carted to two disused gravel pits, one within and the other without the district. No complaints of nuisance have been received with regard to these tips. The average cost of removal of house refuse and street scavenging is about £200 per annum.

Three hundred fixed ashpits have been done away with in the past few years, and I hope that the number will be still further reduced. There is no arrangement for the periodical removal of stable manure. This is left to the owners, who usually have it removed when it is convenient for the farmer to fetch it away, rather than when it is becoming a nuisance. In the proximity of houses no manure should be allowed to accumulate for more than a week.

BATHS.—A new public swimming bath is in course of erection at a cost of £1,800, of which £1,000 was generously given for the purpose by Mr. Geo. Courtauld, and £800 was raised by loan, with the sanction of the Local Government Board, who held an enquiry for the purpose in June.

The swimming bath, which is entirely closed in and covered with a glass roof, is 60 feet by 26 feet, and varies in depth from 3½ to 7 feet. Water is supplied from the Council's mains and a heating apparatus will be provided to maintain the water at an equable temperature. Four hot and cold slipper baths are also provided.

It is hoped to open the baths to the public during the coming spring.

SANITARY INSPECTIONS OF THE DISTRICT.—The tabular statement of work done is shown on the next page. The routine inspection work has been very considerably interfered with by the amount of time that had to be given to the diphtheria epidemic, as no less than 57 houses had to be disinfected, besides much other work in connection with it.

Summary of work done through the Sanitary Inspector and under the H.W.C. Acts, in the Urban District of Halstead during the year ending December 31st, 1913.

					Total number for year.
1	Complaints received	...	...	...	7
2	Nuisances detected without complaint	...	...	...	123
3	Nuisances abated	...	...	...	123
4	Nuisances remaining unabated	...	...	...	7
5	Formal notices served	...	...	...	28
6	Summonses issued	...	...	...	—
7	Convictions obtained	...	...	...	—
8	No. of cottages inspected	...	...	...	345
8a	Primary inspections under Housing, Town Planning, &c. Act, '09 and the Housing Regulations, '10	...	...	...	8
9	No. of cottages found unfit for human habitation	...	...	...	3
10	No. of representations made with the view of Closing Orders being made	...	...	...	3
11	No. of Closing Orders made	...	—	...	3
12	No. of cottages in which defects were remedied without a Closing Order	...	...	...	4
13	No. of cottages in which defects were remedied after making Closing Order	...	...	...	—
14	No. of cottages closed	...	...	...	3
15	No. of cottages demolished by order	...	...	...	—
16	No. of Common Lodging Houses in District	...	...	...	—
	Frequency of Inspection	...	...	...	—
17	No. of Slaughter Houses in District	...	...	...	10
	Frequency of Inspection	...	...	...	quarterly
18	No. of Bakehouses in District	...	...	...	14
	Frequency of Inspection	...	...	...	quarterly
19	No. of Dairies and Milkshops	...	...	...	6
	Frequency of Inspection	...	...	...	quarterly
20	No. of Cowkeepers	...	...	...	3
	Frequency of Inspection	...	...	...	quarterly
21	No. of samples of milk taken for examination for cleanliness, etc.	...	...	...	—
22	Filthy houses cleansed	...	...	...	—
23	Houses disinfected	...	...	...	57
24	Cases of overcrowding abated	...	...	...	—
25	New Houses.	...	...	...	2
26	No. of certificates granted	...	...	...	—
27	Public wells sunk	...	...	...	—
28	Privies. No. in district	...	...	...	10
	No. abolished during the year	...	...	...	—
29	No. of pail closets	...	...	...	11
30	No. of W.C.s with proper flushing arrangement	...	...	...	—
31	No. of hand-flushed W.C.s	...	...	...	—
32	Animals improperly kept removed	...	...	...	—
33	Samples of water taken for analysis	...	...	...	—
34	Compensation paid for bedding, clothing, etc., destroyed	...	...	...	—
35	Seizures of unsound food	...	...	...	1

W. A. NICHOLSON, Sanitary Inspector.

COMMON LODGING HOUSES. OFFENSIVE TRADES. UNDERGROUND SLEEPING ROOMS, &c.—There are none of these in the district. Permission to convert very unsuitable premises into a common Lodging House was refused by the Council, though it was felt that a modern sanitary Common Lodging House would be an advantage to the town.

SCHOOLS.—There are three public Elementary Schools, accommodating about 1,000 children and one Secondary School, with 70 children, in the town. The sanitary condition and water supply are satisfactory on the whole. Very drastic improvements and alterations have been made at Holy Trinity Schools recently, but the lighting is yet hardly satisfactory. Improvements have been carried out at St. Andrew's Schools during the year. Much needed improvements are also to be made shortly at the Council Infants' School.

The Medical Inspection is in the hands of the County Education Committee, and I was in constant communication with the School Medical Officer when the necessity arose. Action with regard to Infectious Disease is dealt with under that heading.

MILK SUPPLY.—There are only three registered cowkeepers in the district, and six milk shops, which are usually clean when inspected. Most of the milk sold in the town comes from the Halstead Rural district. Similar Regulations under the Cowsheds, Milkshops and Dairies Orders are in force in both districts. No action has been taken with regard to Tuberculous milk.

SLAUGHTERHOUSES.—There are 10 in the district. Many of them are not in a satisfactory condition and the bye-laws are not properly observed. Unless there is considerable improvement I shall advise the Council to take action. In one instance, where a urinal was too close to a slaughter-house, it was removed to a more suitable distance on the representations of the Inspector.

UN SOUND FOOD.—During the inspection of the slaughter houses one seizure of half a carcase of pork, 4 plucks and 4 livers was made and at the same time two other whole carcasses were surrendered for destruction. No other seizures have been made, although a sharp look-out has been kept. My invitations to a demonstration on Meat Inspection, by T. Dunlop Young, Esq., M.R.C.V.S., Chief Inspector to the Corporation Central Meat Markets, London, held at Braintree in June last and illustrated by numerous specimens, were accepted by the Members of the Council, the Sanitary Inspector, and other persons interested.

BAKEHOUSES.—These have been inspected regularly and found fairly satisfactory, but there is some room for improvement in the matter of cleanliness in many of them. There are 14 of them in the district.

SALE OF FOOD AND DRUGS ACTS.—MILK AND CREAM REGULATIONS, 1912.—These are administered by the County Council, and I have no information as to the number of samples taken for analysis in this district.

Under these regulations, which came into force in October, 1912, no preservative of any kind may be added to milk for sale.

HOUSING.—During the year a commencement was made with a house to house inspection of the town under the Housing Regulations of 1910. No definite system had been commenced by my predecessor, as he had known that his term of office would soon expire and he felt that it would be unwise to start on a system which his successor might wish to vary. The start was, unfortunately, only made just at the close of the year, owing to the arrears of work caused by the diphtheria epidemic in the summer, and it was quickly found that your Inspector could not give the necessary time to the work without extra help, so that only 8 houses were inspected before the end of the year. As soon as I brought this to the notice of the Council in December, they commenced to take steps to provide him further assistance and during the coming year I expect good progress will be made.

The tabular statement required is as follows:—

No. of dwelling houses inspected under and for the purpose of Sec. 17 of the Act of 1909—				
Found defective	...	...	...	7
Not defective	...	...	...	1 — 8
No. of dwelling houses which on inspection were considered to be in a state so dangerous or injurious to health as to be unfit for human habitation ...				
	...	...	...	3
No. of representations made to the local authority with a view to the making of closing orders...				
	...	...	...	3
No. of closing orders made ...				
	...	...	...	3
No. of dwelling houses in which the defects were remedied with- out the making of closing orders ...				
	...	...	...	4
No. of dwelling houses which after making of closing orders were put into a fit state for human habitation ...				
	...	...	...	0

General character of the defects.—Dampness, defective floors, insufficient ventilation, insanitary surroundings, faulty closet accommodation, &c.

It must be pointed out that the above does not include anything like all the work that has been done with regard to housing inspection, but only that in which records have been kept in accordance with the Housing (Inspection of District) Regulations, 1910. From the Inspector's Statement on page 7, it will be seen that 345 visits have been paid to cottages, and most of the 123 nuisances detected have been the result of these inspections.

The housing conditions of the town are not altogether satisfactory. Though few actual back-to-back houses exist—probably not more than 9 or 10 in all—a good many of the older houses are crowded together up yards and have insufficient open space round them and many are very damp. There is a great scarcity of houses at the present time and at the close of the year the Council were looking for suitable sites which they could purchase for the erection of houses. Only two new houses have been erected by private enterprise during the year. As soon as there are more empty houses available, I think considerable improvements can be effected by closing and demolishing some of the worst houses, but there are a few that may have to be dealt with as obstructive buildings. A start has already been made with three old houses, which, when demolished, will greatly improve the air space of the adjacent ones.

Byelaws for the control of new streets and buildings are in force, and the question of revising them is before the Council.

WORKSHOPS, WORKPLACES, &C.—There are 61 workshops on the register, including 14 bakehouses. These have all been inspected during the year,, and no action found to be necessary.

It is probable that the register is not quite up to date, and so a few may have been missed, but steps will shortly be taken to have this remedied.

No defects have been referred by the Factory Inspector to the Council for action to be taken. No lists of outworkers have been received, though I am not sure that a certain amount of homework is not still given out by employers in the town.

C. SANITARY ADMINISTRATION OF THE DISTRICT.

STAFF. Up to March 31st, the duties of Medical Officer of Health were performed by Dr. Roberts, who was also engaged in private practice, but the Urban District having entered into the North Essex Combination of Districts for the purpose of employing a whole-time Medical Officer of Health, I took over the duties from him on April 1st.

The duties of Surveyor, Sanitary Inspector, Housing Inspector, &c., &c., are carried out in an able manner by Mr. Nicholson, who now finds his time more than fully occupied since the increase of work entailed by the Housing (Inspection of District) Regulations of 1910. The question of providing him with extra assistance is at present engaging the attention of the Council.

The Sanitary Committee and Council meet monthly to consider our reports. I usually attend both meetings.

HOSPITAL ACCOMMODATION.—Accommodation for isolating cases of Infectious Disease is provided by the Council at their hospital at Mount Hill, which was erected in 1896 at a cost of £3,800. There is only one ward block, containing two wards of 4 beds each, with dayroom between, so that it is difficult to deal satisfactorily with more than one disease at a time. Moreover the Rural District Council pay a retaining fee for the right to send cases in from their district. The Council have therefore carefully considered a recommendation of Dr. Thresh, the County Medical Officer, that they should unite with the Rural District Council for the formation of a Joint Hospital Board, which should take over their hospital from them and enlarge it by the addition of a second ward block.

The Council at once agreed to the principle, and went carefully into financial matters. They made a very fair offer to the Rural Council of a half share in the present property for £1,500, and for the expenses of the proposed Joint Board to be borne in equal proportions. This was agreed to and just before the end of the year, application was made to the Local Government Board for an order constituting the Halstead Joint Hospital Board. The Council are to be congratulated upon their action in the matter and when the new arrangements are carried out several improvements will be made in the administration and the great advantages of the scheme will be even more apparent.

During the year the Council entered into an agreement with the County Council for the maintenance of six beds for female patients suffering from tuberculosis. Three double shelters and a nurse's day-room were hired from the County Council and erected in a suitable position in the grounds of the hospital and were open for the reception of patients on October 22nd. Maintenance, medical attendance and nursing, &c., are provided by the Urban Council, for which the County Council pays 30s. per week per bed, which just covers the expense. The permanent nursing staff has been increased from one to three.

The hospital has been well utilised during the year, the accommodation during the height of the diphtheria epidemic being insufficient. Of the 51 cases of scarlet fever and diphtheria notified during the year, 45 were removed to hospital, which is a good testimonial to its usefulness and popularity. Four cases were also removed there from the Rural District. At the close of the year, proper provision for small pox cases was being considered and the Council supported and were prepared to join in the suggested scheme for providing a new small pox hospital for a combination of nine districts in North West Essex. This scheme will I believe, materialise during the coming year.

This question is becoming one of great importance on account of the increasing proportion of unvaccinated persons in the community. With a total of 123 births, there were no less than 82 conscientious objection exemptions in the Urban District during the year.

ADOPTIVE ACTS, &c.—The following adoptive Acts are in force :—

- | | | |
|--|-----|------------------|
| I. The Baths and Washhouses Acts | ... | adopted in 1886. |
| II. The Infectious Disease Prevention Act, 1890 | .. | .. 1890. |
| III. Part III. The Public Health Amendment Act, 1890 | .. | .. 1891. |

The Council have made Byelaws and Regulations dealing with :—

- | | | |
|--|-----|------------------|
| I. New Streets and Buildings | ... | adopted in 1896. |
| II. Slaughter houses | .. | .. 1896. |
| III. Cleansing of Footways and Pavements | ... | .. 1896. |
| IV. Dairies, Cowsheds and Milkshops | ... | .. 1907. |

During the Autumn, I drew the attention of the Sanitary Committee to the Public Health Acts Amendment Act 1907, and they decided to recommend the Council to apply for an order declaring several sections to be in force.

There are no local Sanitary Acts.

CHEMICAL AND BACTERIOLOGICAL WORK is carried out by Dr. Thresh, at the County Laboratories for the Council, and during 1913 the following examinations have been made :—

Analysis of Waters—Chemical	...	...	0
Bacteriological	...	...	0
Examination of Throat Swabs for Diphtheria	...	...	214
The Examination of Sputum for Tubercle	...	...	27
Others	...	...	3

D. PREVALENCE OF AND CONTROL OVER INFECTIOUS DISEASE.

NOTIFIABLE.—From Table II. it will be seen that three cases of scarlet fever, one of puerperal fever, and 48 of diphtheria have been notified.

The cases of scarlet fever all occurred in one house, early in the year. The case of puerperal fever was attended by a medical practitioner, and terminated fatally.

The diphtheria cases occurred in epidemic form between April 4th and August 4th. A Special Report dealing with this epidemic was presented to the Council in August, and is printed below with slight modifications.

HALSTEAD URBAN DISTRICT COUNCIL.

SPECIAL REPORT UPON A DIPHTHERIA EPIDEMIC, APRIL—JULY, 1913.

Diphtheria started in epidemic form in this district on April 4th, after an absence from the district since September, 1912, and an absence in epidemic form since 1903.

The first two cases occurred on April 4th, and I have not been able to trace the source of either of them. The last case occurred on August 4th, and altogether 48 cases were notified. Of these 48 cases 22 were connected with four outbreaks in the Council Infant School, owing to the presence of mild cases, unrecognised until special search was made for them.

At the Greenwood Industrial School five more were presumably connected with each other, though the method of the first and subsequent infections is not easy to decide.

Ten cases occurred in St. Andrews Schools, 4 in the Boys department, 3 in the Girls' department, and 3 in the Infants' department. The connection between these, and also between them and the other cases is not at all obvious; but from the character of the epidemic, there were in every probability several mild cases which never came under our cognisance at all. In fact, some 8 or 9 of the children notified would never have been recognised except through my systematic visiting of the schools and of the homes of the absentees from school.

There were no cases in the Trinity Schools or in the Council Mixed School. The schools do not draw their children from any particular section of the town.

The possibility of the milk supply being the cause of some of the earlier cases was investigated, but no suggestive evidence could be obtained. Although swabs were taken from several nasal discharges no cases of nasal diphtheria were found.

MEASURES TAKEN FOR DEALING WITH EPIDEMIC.

I. *Prompt visitation and removal to Hospital.*—This was done in all except 6 cases where there were conveniences for isolating them at home. None of these cases gave rise to any further ones, except possibly No. 19. The bacteriological reports from this child were repeatedly negative, but a brother acted as a carrier case in the Council Infant School a month later, and gave rise to 6 others.

II. *House disinfection after removal to Hospital.*—This was done with formalin lamps in every case.

III. *Supervision of Contacts.*—In every case I visited the house after notification and examined the contacts, usually on two or three occasions. Children from infected houses were excluded from School for 10—14 days from the date of the removal of the patient and of the disinfection of the house; and workers in a large textile factory were excluded for a similar period unless they went into lodgings; and then they were only allowed back sooner after a negative report from a throat swab. Supervision was exercised over those lodging out to see that they did not go home during the period of quarantine.

IV. *Schools.*—After the receipt of notification of every case attending any school, I visited the school and examined the throats of the children present, and all absentees were also noted. These were visited if a satisfactory explanation of absence was not forthcoming, and in this way I found up four or five cases which would probably not otherwise have been discovered, as the disease was so mild that the parents would not have suspected anything serious and consulted a doctor.

COUNCIL INFANT SCHOOL AND SCHOOL CLOSURE.—In the case of the Council Infant School I carried out this routine examination three times a week for a fortnight after each outbreak on April 7th, April 28th, June 6th and July 3rd. The school was closed for disinfection on these occasions, and at each re-opening after closure for disinfection I was present and examined the children in the playground before allowing them into the building at all.

At the examination on April 28th, in consequence of notifications Nos. 10 and 11, I found four children in school (regularly attending) with obvious membrane in their throats, but apparently so well in health that their parents had not thought anything to be amiss. One (No. 12) had been affected for some time as the membrane all came off on to the swab, and no doubt was the source of this batch of cases.

The school was reinfected again about June 3rd by No. 22, who gave rise to three other cases. No. 27 was only discovered by persistent enquiries on my part at the home, as to the cause of his absence from school, and by my being finally allowed to examine the child after two refusals on the part of the parents.

The school was reinfected again about June 30th, and in consequence of notifications 33 and 34 I discovered No. 35 convalescing in school (after regular attendance from June 16th, when he was allowed to return to school after disinfection of the house on June 6th, when after No. 19 was considered to be free), and three other cases. The school was promptly closed again for disinfection, and reopened on July 7th.

The question of closing this school for a longer period was constantly in my mind, and would perhaps have saved the infection of the seven cases from No. 35 at the beginning of July. On the other hand it would have prevented me from discovering No. 35 and finally getting him isolated, and he might thus have given rise to more cases than he did.

My chief reason for not advising closure for a longer period was that the only way of getting hold of many of the cases seemed to be by

prompt visitation of absentees from school, as few were ill enough to have a doctor—at any rate until the disease was advanced: and my chief source of information would thus have been stopped.

On the other hand keeping the school open involved the giving of a very great amount of time and labour to the constant visitation and inspections. At that time I was exceptionally situated, so that I was able to give the necessary time, but probably in future in similar epidemics I should not be able to, and should have to keep the school closed. It may also be noted as perhaps bearing on the question of school closure, that after the Whitsuntide holiday there was a lull in the epidemic for a time.

The last two cases were return cases from a brother who was discharged from the hospital after two negative swab reports. Four days later he had a recrudescence of his symptoms, and was sent back to the hospital with two other members of the family whom he had infected.

This extensive epidemic has given a great deal of work to the Sanitary Inspector, and at all times I found his assistance most trustworthy, arduous and willing, and the Council have also given assistance in their power.

E. BERTRAM SMITH,
Medical Officer of Health.

August, 1913.

The measures taken for the control of Infectious Disease are described in the special report. Antitoxin is provided by the Council, No arrangements are made for the removal of bedding to the hospital for steam-disinfection or for the stripping of walls and re-papering after disinfection. I think this should be done where cases are nursed at home.

NON-NOTIFIABLE INFECTIOUS DISEASE.—The teachers notify the School Medical Officer and myself of every case that they hear of, and any action necessary is chiefly taken by the School Medical Officer in consultation with me.

With regard to all cases of infectious disease in schools we are in constant communication, and a member of the School Medical Staff visits the schools with me where we think it advisable. School closure, if necessary, is usually ordered by the S.M.O. after consultation with me.

A severe epidemic of measles affected the town in February and March, and caused 9 deaths.

The schools were closed as under:—

Council	...	...	February	5	till	March	25
St. Andrews	...	...	„	26	„	25	
Holy Trinity	...	...	„	26	„	25	

E. PREVALENCE OF AND CONTROL OVER TUBERCULOSIS.

Important measures have been recently initiated to deal with this dread disease. Since February 1st, 1913, all cases of tuberculosis, whether of the lungs or other parts of the body, have been compulsorily notifiable, and a further system of notification was instituted of the admission and discharge of persons into and from Workhouses and all sanatoria approved by the Local Government Board under the Finance Act of 1910. This is

of great value in keeping track of all notified cases, and of arranging for the disinfection of the house when a patient goes away to an institution for treatment.

Fortunately also the County Council has determined to provide for institutional and dispensary treatment of non-insured as well as insured persons; and has arranged for the services of its Tuberculosis Officers to utilise for their benefit. During the year two non-insured persons have had sanatorium treatment provided by it, one being removed to a sanatorium at the request of the Urban Council on account of his infective condition and the impossibility of isolating him at home.

In order to avoid irritation by the unnecessary duplication of visits to notified cases by different officials, most of the primary visits are paid by the Tuberculosis Officer who informs me if any sanitary action is required, and if it is not, I usually defer my visit for a time. In all cases where a shelter is to be provided, I visit and inspect the proposed site, and only after removal to an institution or death does the Sanitary Inspector visit, and then for the purpose of and disinfecting the premises. In these cases I think the bedding should be removed to the hospital for steam disinfection in all instances.

The number of officials visiting is thus kept as low as possible, consistent with efficiency of action.

The examination of sputum is provided for by the Council, but as the arrangements for the detection of unrecognised cases among contacts are largely in the hands of the Tuberculosis Officer some examinations are now also carried out through him.

The number of cases notified will be seen from Table II to be 16, of which 10 are pulmonary phthisis. The notification of pulmonary tuberculosis was in force last year, when 28 were notified, but the figures are not strictly comparable.

Of these 44 cases, 10 died and 1 removed during 1912, and 5 have died during 1913, leaving the number of 28 notified cases in the district on December 31st.

Four cases of phthisis and two of other forms of tuberculosis have had institutional treatment during the year, and of these 4 are cured or much improved, and 1 is since dead.

PHTHISIS DEATH RATE. From Table III it will be seen that four deaths from Phthisis have occurred, which gives a death rate from this cause of '634. Rates based upon such small numbers are of no value for comparative purposes and so I have calculated the average death rate for the past 5 years (1909-13), which is '893, and for the previous 5 year period (1904-8), which is '826. The death rate for the County for 1912 was '74, and for its Urban Districts '77, so that our rate is somewhat above the average.

In this connection must be borne in mind the larger proportion of females and old persons in the town. The death rate from phthisis is higher in males than females, and in the adolescent and middle-aged than in the old, so that with the smaller proportion of males and of persons of the most susceptible type in our population, we ought to have a slightly lower death rate than the County.

I trust the Council will go steadily forward with improving the sanitary condition and especially the housing of the town, and thus bring about some further diminution. I am convinced that it is of little use to spend money on sanatoria, unless at the same time housing conditions are materially improved.

F. INVESTIGATION OF OTHER DISEASES.

MEASLES.—The nine deaths due to the epidemic in the spring give a death rate of 1·42.

CANCER.—On Table III are shown 14 deaths, which gives a death rate of 2·219. The average for the last 5 years is 1·531, for the previous 5 years is 1·361 and that for the County for 1912 was '98, so that we are much above the average, and have been for a number of years.

The excessive proportion of old persons in our population (in whom cancer is most prevalent) partly accounts for this; but not, I think, entirely, as rural districts with an even higher proportion of old persons in their population have lower cancer death-rates than Halstead.

One other possible cause suggests itself to me, though its effect cannot be very great, and as I am unable to obtain the number of deaths of males and females separately over a number of years, I cannot state what influence it has. I have already pointed out the undue proportion of females in the town (and unless this excess is entirely due to *young* persons who are *not* more liable to cancer) it is possible this may be a contributing factor to the persistently high rate; for women are more liable to die of cancer than men.

I am afraid that there must also be other causes for the high death-rate, which are at present unknown to me.

Venereal Disease is not very prevalent, I am glad to say. There are no local facilities for modern methods of diagnosis and treatment.

G. MEANS FOR PREVENTING MORTALITY IN CHILD BIRTH AND INFANCY.

The Midwives' Act is administered by the County Council. From Table IV it will be seen that only 8 deaths occurred under the age of 1 year, 2 of which were in the first fortnight of life. The mortality rate is 65 per 1000 births. During the year a circular was received from the Local Government Board drawing the attention of the Council to the Notification of Births Act and the importance of the sanitary condition of yards and ashpits, &c. I felt it difficult to recommend the Council to adopt the Act, considering the difficulties of administration, &c., but pointed out the importance of the other recommendations of the circular.

It is satisfactory to note that the Council's efforts to improve the sanitation of the district are at last having an effect upon the Infantile Mortality Rate. Until as lately as the year 1908 this has consistently been much too high, but the improvement has been so persistent during the last four years, including the hot summer of 1911, that we may reasonably anticipate it to be permanent.

Average Infantile Mortality Rate.

		Halstead		Essex
1902—5	...	126	...	112
1906—9	...	114	...	93·5
1910—13	...	68·5	...	80

The above table is interesting, and shows that while 10 years ago the rate for Halstead was above the County average, it is now below it; but there is still room for improvement, and I shall hope to see it drop still further below the County average.

H. VITAL STATISTICS.

TABLE I. BIRTH AND DEATH RATES. The birth-rate for 1913 is 19·5 per 1000 of population, and although low, is the highest for some years. The rate for England and Wales for 1913 was 23·8, and for Essex 23·3.

The number of deaths registered in the district was 114, to which must be added the deaths elsewhere of 3 residents, less the number of 14 non-residents whose deaths were registered in the district, giving a nett total of 103. Both these figures are in excess of those for recent years, and the nett death rate of 16·3.

Before comparison can be made between the death-rates of different districts, or of England and Wales, a further correction must be made.

It is obvious that a district containing an undue proportion of the very old must have a higher death-rate than a district with an undue proportion of persons in the prime of life. Factors for correcting for differences between the age and sex constitution of individual districts and that of England and Wales as a whole have therefore been calculated by the Registrar-General on the census population of 1911, and for Halstead the death-rate must be multiplied by '8697, giving a standardised death-rate for comparative purposes of 14·17.

It will therefore be seen that Halstead contains an undue proportion of persons of the age groups in which the death-rate is highest. The death rate for England and Wales for 1913 was 13·6, and for Essex 10·9, so that even after corrections are made our death rate is still too high.

TABLE II shows the cases of infectious disease, which have already been discussed. (p. 12 and 15.)

TABLE III analyses the causes of, and ages at death. The undue mortality from special causes has been referred to on p 16.

TABLE IV. INFANTILE MORTALITY. This table is satisfactory and has been discussed. (p. 16.)

TABLE V. FACTORIES AND WORKSHOPS. The work under this heading has already been referred to. (p. 10.)

I. RAINFALL, 1913.

By the courtesy of Mr. Edgar T. Adams, I am able to give the following table of the amount of rainfall measured at the Brewery House:

January	...	3'11	July	...	1'92
February	...	0'62	August	...	1'16
March	..	1'81	September	...	0'91
April	...	1'77	October	...	3'62
May	...	1'64	November	...	2'70
June	...	1'23	December	...	0'57
Total		...	21'06 inches.		

In conclusion I have to thank the Clerk and the Surveyor for the help they have given me in preparing this report.

I have the honour to remain, Gentlemen,

Your obedient servant,

E. BERTRAM SMITH.

March, 1914.

Table I: VITAL STATISTICS OF WHOLE DISTRICT DURING 1913, AND PREVIOUS YEARS.

HALSTEAD URBAN DISTRICT.

YEAR.	Population estimated to Middle of each Year.	BIRTHS.			TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFERABLE DEATHS.		NETT DEATHS BELONGING TO THE DISTRICT.			
		Un- corrected Number.	Nett.		Number.	Rate.	of Non- residents register- ed in the District.	of Resi- dents not register- ed in the District.	Under 1 Year of Age.		At all Ages.	
			Number.	Rate.					Number.	Rate per 1,000 Nett Births.	Number.	Rate.
1908.	6,210	101	—	16.3	107	17.2	13	1	18	178	95	15.3
1909.	6,229	115	—	18.5	102	16.4	17	1	12	104	86	13.8
1910.	6,249	105	—	16.8	103	16.4	13	1	8	76	91	14.5
1911.	6,269	107	107	17.0	95	15.1	9	4	10	93	90	14.4
1912.	6,289	102	101	16.0	76	12.0	13	2	4	40	65	10.3
1913.	6,309	123	123	19.5	114	18.1	14	3	8	65	103	16.3

Area of District in acres (land and inland water) } 647

Total population at all ages, 6,264.) At Census, 1911
Number of inhabited houses, 1,575. (cf. Census,
Average number of persons per house, 4.) Vol. VI).

Table II: CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR 1913.

HALSTEAD URBAN DISTRICT.

NOTIFIABLE DISEASE.	NUMBER OF CASES NOTIFIED.								TOTAL CASES REMOVED TO HOSPITAL.
	At all Ages.	At Ages—Years.							
		Under 1.	1 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.	65 and upwards.	
Small Pox... ..	...							
Cholera, Plague ... ..	...							
Diphtheria (including Membranous croup)...	48	...	10	35	2	1	...	...	42
Erysipelas... ..	1	...	...	1	...	...	...	...	...
Scarlet Fever	3	...	1	1	1	...	...	...	3
Typhus Fever ... ..	...							
Enteric Fever ... ..	...							
Relapsing Fever ... ..	...							
Continued Fever ... ..	...							
Puerperal Fever	1	...	...	..	...	1	...	...
Cerebro-spinal Men- ingitis ... ..	...							
Poliomyelitis ... ..	...							
Pulmonary Tuber- culosis	10	...	...	...	7	2	1	...	4
Other forms of Tuber- culosis	6	...	...	2	...	2	2	...	2
Totals	69	...	11	39	10	6	3	...	51

Isolation Hospital or Hospitals, Sanatoria, &c.—Halstead Urban District Council’s Isolation Hospital, Mount Hill, Halstead (within), and various Tuberculosis Sanatoria provided by the Essex County Council (within—at above Hospital—and without the district).

Table III: CAUSES OF AND AGES AT DEATH
DURING THE YEAR 1913.

HALSTEAD URBAN DISTRICT.

Causes of death.			Nett deaths at the subjoined ages of " Residents " whether occurring within or without the district.								Total deaths, whether of " Residents " or "Non-residents" in Institutions in the District.	
			All ages.	Under 1 year.	1 and under 2 years.	2 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.		65 and upwards.
All causes {	Certified	...	99	7	5	3	5	3	8	20	48	32
	Uncertified	...	4	1	...	..	..	..	..	1	2	0
1.	Enteric Fever	...	...							
2.	Small-pox	...	...							
3.	Measles	...	9	1	2	2	4	...	...	...	...	3
4.	Scarlet Fever	...	...							
5.	Whooping Cough	...	...							
6.	Diphtheria and Croup	...	...	...	...	...	...	...	...	...	...	1
7.	Influenza	...	...							
8.	Erysipelas	...	...							
9.	Phthisis (Pulmonary Tuberculosis)	...	4	...	...	...	...	1	2	1	..	
10.	Tuberculous meningitis	...	...							
11.	Other Tuberculous diseases	...	1	...	...	...	...	1	...	...	...
12.	Cancer, malignant disease	...	14	...	...	...	...	...	...	9	5	2
13.	Rheumatic fever	...	...	...	...	...	...	...	...	...	...	1
14.	Meningitis	...	2	...	...	1	...	1	...	...	...	2
15.	Organic Heart Disease	...	11	...	...	...	...	...	...	1	10	2
16.	Bronchitis	...	9	...	1	...	...	...	1	...	7	4
17.	Pneumonia (all forms)	...	8	1	...	...	1	...	...	2	4	
18.	Other diseases of re- spiratory organs	...	3	...	...	...	...	...	...	1	2	
19.	Diarrhoea & Enteritis	...	1	...	...	...	...	...	...	...	1	
20.	Appendicitis and Typhlitis	...	...	...	...	...	...	...	...	...	...	1
21.	Cirrhosis of liver	...	...							
21a.	Alcoholism	...	...							
22.	Nephritis and Bright's disease	...	3	...	...	...	...	...	1	...	2	
23.	Puerperal Fever	...	1	...	...	...	...	...	1	...	...
24.	Other accidents and diseases of Pregnancy and Parturition	...	...							
25.	Congenital Debility and other Malforma- tion, including prem- ature birth	...	4	4	...	...	...	...	...	...	...	1
26.	Violent deaths, ex- cluding suicide	...	2	1	...	...	...	...	...	1	...	2
27.	Suicide	...	...							
28.	Other defined diseases	...	27	1	1	...	..	...	3	4	18	9
29.	Diseases ill-defined or unknown	...	4	...	1	...	...	...	...	2	1	4
Totals			103	8	5	3	5	3	8	21	50	32

Sub-entries — Nil.

Table IV: INFANT MORTALITY.

HALSTEAD URBAN DISTRICT.

1913. Nett Deaths from stated causes at various Ages under 1 Year of Age.

CAUSES OF DEATHS.			Under 1 week.	1-2 weeks.	2-3 weeks.	3-4 weeks.	Total under 4 weeks.	4 weeks & under 3 months.	3 months and under 6 months.	6 months and under 9 months.	9 months and under 12 months.	Total Deaths under 1 year.
All causes	Certified	...	2	...	...	...	2	1	2	2	...	7
	Uncertified	...	...	...	...	...	...	...	1	...	...	1
Small-pox			...	...	...	...	...	...	...	...	...	...
Chicken-pox			...	...	...	...	...	...	...	...	...	...
Measles			...	...	...	...	...	...	...	1	...	1
Scarlet Fever			...	...	...	...	...	...	...	...	...	...
Whooping-Cough			...	...	...	...	...	...	...	...	...	...
Diphtheria and Croup			...	...	...	...	...	...	...	...	...	...
Erysipelas			...	...	...	...	...	...	...	...	...	...
Tuberculous Meningitis			...	...	...	...	...	...	...	...	...	...
Abdominal Tuberculosis			...	...	...	...	...	...	...	...	...	...
Other Tuberculous Diseases			...	...	...	...	...	...	...	...	...	...
Meningitis (<i>not Tuberculous</i>)			...	...	...	...	...	...	...	...	...	...
Convulsions			...	...	...	...	...	...	...	...	...	...
Laryngitis			...	...	...	...	...	...	...	...	...	...
Bronchitis			...	...	...	...	...	...	...	...	...	...
Pneumonia (all forms)			...	...	...	...	...	...	1	...	...	1
Diarrhœa			...	...	...	...	...	...	...	...	...	...
Enteritis			...	...	...	...	...	...	...	...	...	...
Gastritis			...	...	...	...	...	...	...	...	...	...
Syphilis			...	...	...	...	...	...	...	...	...	...
Rickets			...	...	...	...	...	...	...	...	...	...
Suffocation, overlying			...	...	...	...	...	1	...	...	...	1
Injury at birth			...	1	...	...	1	...	...	...	...	1
Atelectasis			...	...	...	...	...	...	...	...	...	...
Congenital Malformations			...	...	...	...	...	...	2	...	...	2
Premature birth			...	1	...	...	1	...	...	...	...	1
Atrophy, Debility and Marasmus			...	...	...	...	...	...	...	1	...	1
Other Causes			...	...	...	...	...	...	...	...	...	...
Totals			...	2	...	...	2	1	3	2	...	8

Nett Births { legitimate 117
in the year { illegitimate 6

Nett Deaths in { legitimate infants 8
the year of { illegitimate infants 0

Table V: Annual Report of the Medical Officer of Health for the year 1913, for the Urban District of Halstead, on the administration of the Factory and Workshop Act, 1901, in connection with FACTORIES, WORKSHOPS, WORKPLACES and HOME-WORK.

1. INSPECTION.

Premises.	Number of		
	Inspections.	Writ. Notices	Prosecutions
Factories (including Factory Laundries) ...	8	...	...
Workshops (including Workshop Laundries) ...	70	...	...
Workplaces (other than Outworkers' premises included in Part 3 of this Report) ...	...	...	...
Total ...	78	...	...

2. DEFECTS FOUND.—Nil.

3. HOME WORK.—No Lists received.

4. REGISTERED WORKSHOPS.

Workshops on the Register (s. 131) at the end of the year.									Number.
Bakehouses	...	...	...	...	...	...	...	...	14
Others	...	...	...	...	...	...	...	...	47
Total number of Workshops on Register									61

5. OTHER MATTERS.

Class	Number
Matters notified to H.M. Inspector of Factories :—	Nil
Failure to affix Abstract of the Factory and Workshop Acts, (s. 133), 1901	
Action taken in matters referred by H M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Acts (s. 5) 1901	
Notified by H.M. Inspector	
Reports (of action taken) sent to H.M. Inspector	
Other	
Underground Bakehouses (s. 101) :—	
Certificates granted during the year	
In use at the end of the year	

